

What is claimed is:

1. A catalyst converter comprising:

a tubular member having a wall;

a carrier contained in the tubular member , the carrier including a series of sheets, sheets being superposed with each other, a respective sheet extending transversely between a respective point and respective another point on the wall; and

an engaging plate crossing the respective sheet , the engaging plate being engaged with the series of sheets.

2. A catalyst converter according to claim 1, wherein the sheets cross substantially orthogonally with the engaging plate.

3. A catalyst converter according to claim 1, wherein the engaging plate and the series of sheets are welded.

4. A catalyst converter according to claim 1, wherein the tubular member has an inlet and an outlet, a gas flows in from the inlet and then flows between the sheets and then flows out from the outlet,

wherein the tubular member having two opposing slits at the inlet, and the engaging plate is put into the slits and then welded thereto.

5. A catalyst converter according to claim 1, wherein the series of the sheets is folded successively back in S-shapes.

6. A catalyst converter according to claim 1, wherein the respective sheet has a plurality of first convex portions and a plurality of second convex portions,

the first convex portions are bent to protrude to one side of the respective sheet and extend along a first direction,

the second convex portions are bent to protrude to the other side of the respective sheet and extend along a first direction,

the first convex portions and the second convex portions are arranged alternately along a second direction intersecting with the first direction to thus form a corrugated shape,

the first convex portions have third convex portions which are partitioned by two cuttings separated at a distance in the first direction and then bent to protrude partially to the other side of the respective sheet, and

the second convex portions have fourth convex portions which are partitioned by two cuttings separated at a distance in the first direction and then bent to protrude partially to the one side of the respective sheet.

5 7. A catalyst converter according to claim 6, wherein the first convex portions and the fourth convex portions are formed to have substantially same projection heights, and

the second convex portions and the third convex portions are formed to have substantially same projection heights.

10 8. A catalyst converter according to claim 6, further comprising flat rack portions arranged between the first convex portions and the second convex portions and extend along the first direction to connect adjacent first and second convex portions.

5 9. A catalyst converter according to claim 8, wherein ends of the cuttings for partitioning the third convex portions are positioned on boundary between the first convex portions and the rack portions, and

ends of the cuttings for partitioning the fourth convex portions are positioned on boundary between the second convex portions and the rack portions.

20 10. A catalyst converter according to claim 6, wherein the third convex portions and the fourth convex portions are provided in plural along the first direction respectively.

25 11. A catalyst converter according to claim 10, wherein a predetermined distance is provided between the ends of the cuttings for partitioning the third convex portions and the ends of the cuttings for partitioning the fourth convex portions along the first direction.

12. A catalyst converter comprising:

30 first and second honeycomb cores, the first and second honeycomb cores being made of first and second corrugated catalyst carriers respectively, the first and second catalyst carriers having first and second series of sheets, first and second sheets extending in substantially parallel to overlap with each other so that first cells
35 are partitioned between the first sheets and second cells are partitioned between the second sheets;

a tubular member for containing the first and second honeycomb cores therein, the tubular member having an inlet and an outlet; and

a metal partitioning member for partitioning an interior of the tubular member into first and second container spaces, both the first and second container spaces being connected to the inlet and the outlet respectively, the first and second honeycomb cores being arranged in the first and second container spaces respectively such that the first and second sheets extend in a direction intersecting with the partitioning member, and a gas flowing in from the inlet and then flowing into the cells from an inlet side end faces of the first and second cores and then flowing out from the outlet.

13. A catalyst converter according to claim 12, wherein the first and second sheets intersect substantially orthogonally with the partitioning member.

14. A catalyst converter according to claim 12, wherein the partitioning member has a connection portion for connecting the first and second container spaces.

15. A catalyst converter according to claim 14, wherein the partitioning member is made of metal thin plates, and

the connection portion is a clearance formed between the metal thin plates.

16. A catalyst converter according to claim 14, wherein the partitioning member is made of a metal thin plate, and

the connection portion is a connection hole formed on the metal thin plate.

17. A catalyst converter according to claim 14, wherein the partitioning member is made of a mesh material.

18. A catalyst converter according to claim 14, wherein the partitioning member has catalyst on its surface.

19. A catalyst converter according to claim 14, wherein the respective first and second series of sheets is folded successively back in S-shapes.

20. A catalyst converter according to claim 14, wherein a respective sheet has first convex portions and second convex portions,

the first convex portions are bent to protrude on one side of the respective sheet and extend along the first direction,

the second convex portions are bent to protrude on other side of the respective sheet and extend along the first direction,

the first convex portions and the second convex portions are arranged alternately along a second direction intersecting with the first direction to form the corrugations,

the first convex portions have third convex portions which are partitioned by two cuttings separated at a distance along the first direction and bent to protrude partially to other side of the respective sheet, and

the second convex portions have fourth convex portions which are partitioned by two cuttings separated at a distance along the first direction and bent to protrude partially to one side of the respective sheet.

21. A catalyst converter according to claim 1, wherein the engaging plate is positioned at an inlet of the tubular member .

22. A catalyst converter according to claim 1, wherein the engaging plate is engaged with the respective sheet.

23. A catalyst converter according to claim 1, wherein the series of sheets has a series of centers defining a straight line, and the engaging plate crosses the respective sheet along the straight line.